

Abstract of the Disclosure

A device and method for delivering and injecting fluid into heart tissue utilizing a laterally directed needle to increase injectate (fluid) retention in the heart tissue. The device may comprise a catheter having a shaft wherein the distal end of the shaft includes
5 a primary penetrating member and a secondary penetrating member. The secondary penetrating member includes an injection lumen in fluid communication with a pressurized fluid source. The primary penetrating member penetrates the heart tissue at the injection site in a first direction, and the secondary penetrating member penetrates the heart tissue in a second direction different from the first direction such that fluid leakage
10 from the injection site is reduced and the volume of treated tissue is increased.

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